



## Mumps Update, Wisconsin

January 25, 2017

### SUMMARY

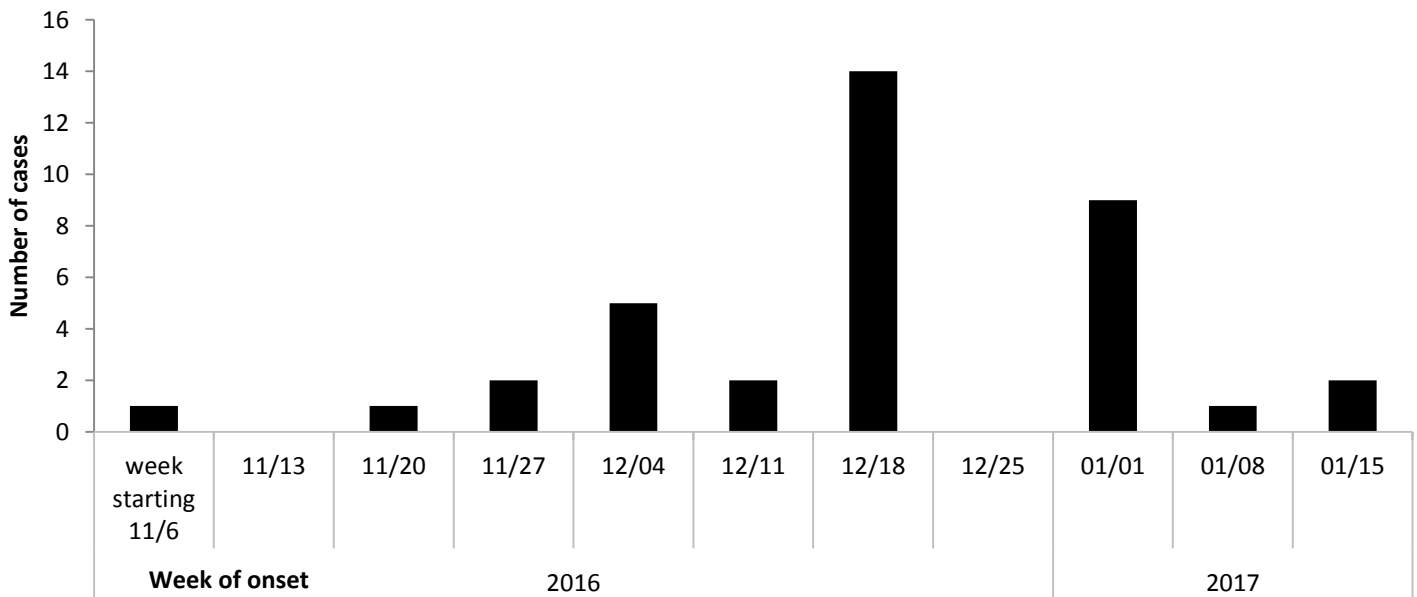
During 2016, [5,311 people in 46 U.S. states](#) had reported mumps infections. This is the largest annual number of reported cases since 2006. Eight states reported more than 100 cases and five states (Arkansas, Iowa, Illinois, New York and Oklahoma) reported more than 300 cases. In Wisconsin, since November 2016 there have been 21 mumps cases associated with UW Platteville and 16 additional cases in 11 counties. This report summarizes these 37 recent mumps cases in Wisconsin.

### CASES BY YEAR (Confirmed cases only)

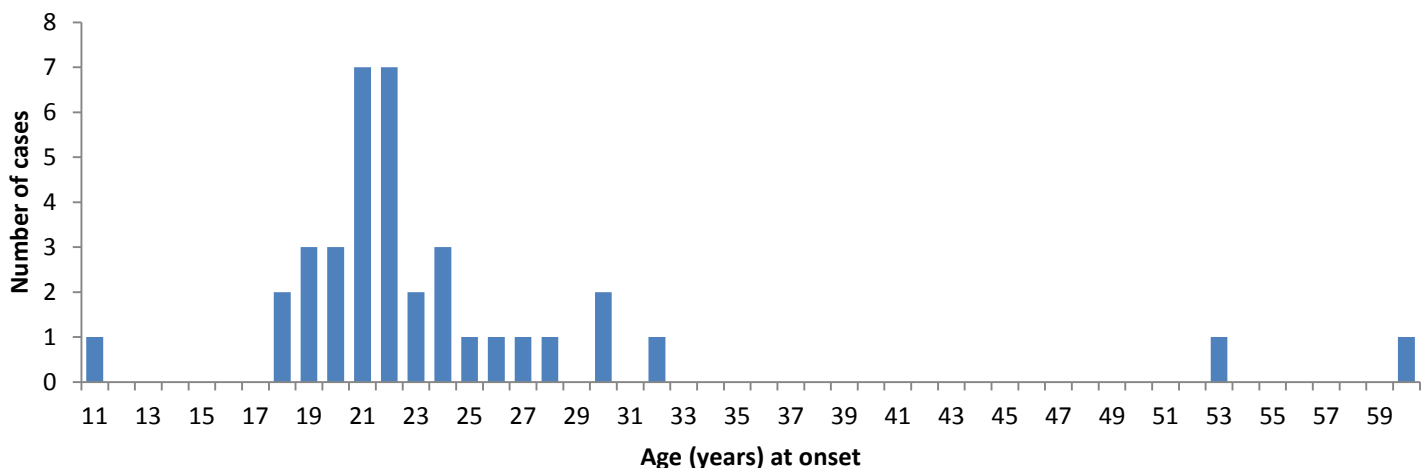
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014 <sup>1</sup>	2015	2016	2017
Number of cases	842	54	6	8	4	4	8	0	53	45	46	12

### RECENT CASES (Confirmed cases since November 1, 2016)

**Occurrence.** Since Nov. 1, 2016, 37 cases have been reported. The last reported onset was Jan. 18, 2017.



### Age distribution. Median: 22 years (range: 11 to 60 years)



**Gender.** 43% female, 57% male

**Affected counties** (number of cases). Calumet (1), Dane (4), Door (1), Grant (20), Kenosha (1), Lafayette (1), Milwaukee (4), Oconto (1), Rock (1), Vernon (1), Waukesha (2)

**Affected universities** (number of cases). UW Platteville (21)

**Mumps vaccination status.** 21 (57%) received 2+ doses, 3 (8%) received 1 dose, 13 (35%) had an unknown vaccination status or were still under investigation.

**Source of infection.** 7 had a suspected exposure outside of Wisconsin; 2 of these had a history of international travel. None of the confirmed cases were known to have had exposure to a mump-infected person.

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### **Q1. What test should be done if mumps is suspected?**

PCR is the preferred diagnostic test for mumps. Buccal swabs for PCR testing should be collected as soon as possible after symptom onset (ideally within 3 days of the onset of parotitis onset, but not more than 9 days after onset). Information on proper technique for collecting a buccal swab can be found on the CDC website: <http://www.cdc.gov/mumps/lab/detection-mumps.html>

The Wisconsin Division of Public Health requests that all samples collected from suspect cases of mumps be sent to the Wisconsin State Lab of Hygiene (WSLH) for testing. Specific guidance for the submission of the samples to the WSLH can be found at: <http://www.slh.wisc.edu/mumps-testing-guidance/> The WSLH Customer Service phone number is 800-862-1013.

In addition, the WSLH is requesting that two swabs are collected from individuals suspected of having mumps: a buccal swab for mumps testing and a nasopharyngeal swab for influenza and respiratory testing (see the following memo for more information: <https://www.dhs.wisconsin.gov/influenza/testing-parotitis.pdf> )

### **Q2. Some people who have had both doses of the recommended MMR vaccine are still getting mumps. Why is this happening if the mumps vaccine is effective<sup>2</sup>?**

During mumps outbreaks in highly vaccinated communities, the proportion of cases that occur among people who have been vaccinated may be high (see example below). This should not be interpreted as meaning that the vaccine is ineffective. The way to assess the effectiveness of the vaccine is by comparing the attack rate in people who are vaccinated with the attack rate in those who have not been vaccinated. In outbreaks in highly vaccinated populations, the relatively few people who have not been vaccinated against mumps usually have a much greater mumps attack rate than those who have been fully vaccinated. During the outbreak in 2006, most of the mumps cases occurred in those who had received 2 doses of the MMR vaccine because most of the affected population had received 2 vaccine doses. However, the attack rate was much higher in the unvaccinated people, and 2 doses of the vaccine were estimated to be 88% (range: 66-95%) effective in preventing mumps.

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<sup>1</sup>The case definition changed as of 2014; counts only include cases confirmed by PCR.

<sup>2</sup>Excerpt from the Centers for Disease Control and Prevention website located at:

<http://www.cdc.gov/mumps/outbreaks/outbreak-providers-qa.html>